

## **REMARKS**

Claims 1, 7-12, and 14 are amended herein without prejudice and without acquiescence. Amendment to claim 1 is provided in the specification at page 17, lines 8 and 10-12, and support for claim 11 is on pages 27-31. Claims 3, 4, and 17 are canceled herein. No new matter has been entered herein.

### **I. Drawings**

As noted on page 2 of the Action, the drawings were objected to under 37 CFR 1.83(a) for allegedly failing to show every feature of the invention specified in the claims. As the elements that the Examiner referred to were recited in claims 3, 4, and 17, Applicants cancel these claims herein and respectfully request withdrawal of the objection.

### **II. Issue Under 35 USC § 112, second paragraph**

Claims 7-10 and 14 were rejected for being indefinite for reciting elements that had insufficient basis. Applicants amend the respective claims accordingly and respectfully request withdrawal of the rejection.

### **III. Issues Under 35 USC § 102(b)**

Claims 1, 2, 5-13, 16 and 17 are rejected under 35 USC § 102(b) as being anticipated by Tooke et al. (WO 01/47638; "Tooke"). Applicants respectfully disagree.

Applicants assert that the previous claims and submitted claims are not anticipated by Tooke. For example, the Examiner contends that element (35) of Tooke corresponds to the porous bed I, but on page 14, line 20 of Tooke element (35) is noted as a Sephadex column; Sephadex columns are gel filtration mediums for separating components based on size and are not mediums that are an affinity medium having an immobilized affinity ligand. Tooke therefore fails to disclose a porous bed I having an immobilized reactant R capable of interacting with a solute S that passes through the bed.

Furthermore, in Sephasil-containing column (15) (which according to the Examiner on page 4 of the Action corresponds to porous bed II) plasmid is captured. The plasmid is then eluted to a cycle sequencing chamber (21) upstream of column (15), and the resulting

reaction solution is passed through gel filtration column (35) for desalting and removal of unincorporated dye terminators prior to subjecting the purified reaction products to an electrophoretic separation in channel (26) containing a gel matrix (or in a separate electrophoretic device). In contrast, in the presently claimed process there is no elution of any substance captured in porous bed II into porous bed I. Tooke therefore fails to disclose a porous bed II upstream of porous bed I that interacts with a substance that would disturb the result of the interaction between a solute S and an immobilized reactant R in porous bed I.

Although Applicants assert that the previous claims were novel over Tooke, solely to further the prosecution of this case claims 1, 11, and 12 were amended to recite the feature that porous bed I is provided in a detection microcavity, and of a detection step, respectively. Tooke neither describes nor suggests any detection made on the column 35 (or column 15).

Applicants note that in the rejection under 35 USC § 103(a) discussed below, the Examiner appears to be citing Mehta in combination with Tooke to attempt to cure the deficiencies of Tooke with regard to affinity purification (as opposed to just gel filtration with Tooke) and detection procedures (page 7 of the Action, lines 14-20).

Applicants respectfully request withdrawal of the rejection.

#### **IV. Issues Under 35 USC § 103(a)**

Claims 3, 4, 14, and 15 are rejected under 35 USC § 103(a) as being unpatentable over Tooke as applied to claims 1 and 12 above and further in view of U.S. Patent No. 6,632,655 (“Mehta”).

Obviousness requires a suggestion of all the elements in a claim (*CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1342 [68 USPQ2d 1940] (Fed. Cir. 2003)) and “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 [82 USPQ2d 1385] (2007). Applicants assert that all elements of the submitted claims are not taught or suggested therein, nor would the skilled artisan find a reason to configure the device of Thomas or a device as in a combination of Thomas and Mehta to achieve the claimed invention having a porous bed II upstream of porous bed I that

interacts with a substance that would disturb the result of the interaction between a solute S and an immobilized reactant R in porous bed I.

Applicants assert that there is no teaching, or suggestion, or motivation in the cited references leading a person skilled in the art to the present invention, as no such features are discussed in any of the cited references. Although on page 7 of the Action the Examiner states that it would have been obvious to combine Tooke and Mehta to provide the purpose of carrying out affinity purification and detection procedures because Mehta discloses that the particle sets are advantageous for use as affinity purification devices in microfluidic systems. However, the skilled artisan would have no reason under KSR to apply Tooke to any teachings related to affinity purification, as Tooke's columns (15) and (35) elements are gel filtration columns that are not configured for such a function as affinity purification. The skilled artisan would have no reason "to combine the elements in the way the claimed new invention does" when Tooke teaches the mutually exclusive act of filtering components of a liquid based on size only.

Applicants therefore submit that the present invention is inventive over the cited references and respectfully request withdrawal of the rejection.

## **V. Conclusion**

In view of the above, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response other than that submitted herewith. However, if a fee is due, please charge our Deposit Account No. 06-2375, under Order No. HO-P02936US1 from which the undersigned is authorized to draw.

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Respectfully submitted,

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